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ABSTRACT

Sixty-six first graders who needed individual help in sight word instruction were equally divided into the experimental group and the control group. The experimental group received extra tutoring on sight word vocabulary while the control group had only classroom instruction. The tutors, 33 fifth graders identified as low achievers in reading, were trained to provide sight word vocabulary instruction to beginning first graders. The training consisted of four 1-hour sessions and included tutor behavior, tutoring skills and procedures, and program objectives. The tutors were also taught to use the Dolch Picture Word Cards. The actual tutoring was held 3 days a week, 30 minutes each day, and lasted for 2 months. The Primary Word Recognition section of the Gates-MacGinitie Reading Test was used for pretest and post-test. Data were analyzed at the .05 level of significance with a t test. Both the experimental and control groups made significant gains during the 2-months period, but the experimental group indicated significantly higher gain than did the control group. Tables and references are included. (AW)

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Abstract

The Effect of Fifth Grade Student Tutors on the Sight Word Vocabulary Attainment of First Graders

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Sixty-six first grade students were studied to investigate the effect of one-to-one tutoring by fifth graders on the sight vocabulary attainment of beginning first graders. The experimental group received tutoring as well as regular classroom instruction while the control group only had classroom instruction. All first grade subjects were pre-tested and post-tested on the Primary Word Recognition section of the Gates MacGinitie Reading Test (1964). A t test was employed to analyze this statistical data at the five per cent level of significance. The results showed that the experimental group and the control group made significant gains during this period. However, it also

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indicated that the experimental group who received tutoring significantly outperformed the control group who only had normal classroom instruction.

Vita

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The Effect of Fifth Grade Student Tutors on the Sight Word Vocabulary Attainment of First Graders

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During the past ten years numerous reading tutorial programs have emerged throughout the country. The tutorial programs have arisen independent of each other and have primarily utilized high school and college students to tutor junior high and upper elementary grade students (Chesler, 1965; Cloward, 1967; Payne, 1967; Weitzman, 1965; and Whitla, 1962). The various tutorial programs have their own aims and objectives, thus the programs take a great number of diverse forms.

Although there have been many articles written and published about tutoring and tutorial programs, few empirical studies have been done which deal with tutorial programs that train and employ upper elementary grade students to assist primary grade youngsters in

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the acquisition of a particular reading skill.

A small number of recent studies have been reported suggesting that fifth and sixth grade students can be trained to operate effectively as tutors for younger children when the skills taught: (1) are rote in nature, (2) require drill and repetition, (3) need review, (4) call for immediate reinforcement and knowledge of results, and (5) necessitate continuous active response: (Ellson, Harris and Barber, 1968; Frager and Stern, 1970; Harrison, 1969; Harrison and Melaragno, 1968; Lippitt and Lohman, 1965; and Niedermeyer, 1969).

Unfortunately, only the Harrison (1969) study supplies any worthwhile statistical data regarding the effects of student tutors on the achievement performances of the children who were tutored. Frager and Stern (1970) studied the self-images of children involved in tutorial programs. Lippitt and Lohman (1965) found that under achievers in reading and outstanding readers were equally as effective as tutors. Lippitt and Lohman (1965) conclude that children who receive

tutoring benefit directly from the instruction. Typical of most studies concerned with tutorial programs, the evaluation criteria are vague and the conclusions are based on inferential statements taken from observations or interviews with teachers and students. In summation, little empirical evidence appears in the literature validating the reported efficacy of tutorial programs.

Rationale

The purpose of this experimental study is to determine the effect of one-to-one tutoring on the sight word vocabulary attainment of beginning first graders. The study was conducted in the fall of 1970 at Wilbur Avenue Elementary School in Tarzana, California.

Factors lending significance to the study include the need to provide educators with: (1) empirical evidence in the form of objective data showing the effects of tutoring on the sight word attainment of first graders who were tutored, (2) verification or

nullification of various claims and testimonial conclusions made in non-empirical studies which attempted to investigate the mutual benefits of tutoring, (3) a means of utilizing upper elementary grade students to provide individualized reading instruction for primary grade children and (4) conclusions that either substantiate or negate the merits and practicality of implementing a tutorial program within an elementary school.

Sample

The subjects were sixty-six first graders selected on the basis of their needing individual help in sight word instruction. Thirty-three first graders served in the experimental group while the remaining thirty-three first graders served as controls. There were eighteen boys and fifteen girls in each group.

The tutors were thirty-three fifth grade students identified by their classroom teacher as low achievers in reading. Nineteen boys and fourteen girls participated as tutors.

Design

A Pre-test-Post-test Control Group Design was employed. All first grade subjects (N=66) were pre-tested and post-tested on the Primary Word Recognition section of the Gates MacGinitie Reading Test (1964). Following the pre-test, each first grader in the experimental group (N=33) was randomly assigned to work with a fifth grade student tutor in an attempt to control for possible effects of tutor-learner interaction. The control subjects (N=33) were merely pre-tested and post-tested.

The organization of the experimental treatment is shown in the following paradigm.

Insert Illustration 1 about here

Method and Materials

The present study focused on an intergrade tutorial program in which fifth grade students identified as low achievers in reading performed as tutors for first grade

Illustration 1

Pre-test-Post-test Control Group Design

O_1	R	X	O_2 (Experimental Group)
O_1	R		O_2 (Control Group)

Where:
O indicates a reading performance test.
X indicates administration of the tutorial program.
R indicates random assignment of subjects.

beginning readers. The fifth graders were trained to provide sight word vocabulary instruction to beginning first grade readers.

The training consisted of four, one-hour sessions which were completed in consecutive days. All training sessions were conducted by one of the investigators. The same investigator also served as a liason among all parties concerned with this study.

The fifth graders received training on specific tutor behaviors, tutoring procedures and program objectives. The fifth graders were taught how to use the Dolch Picture Word Cards representing 95 common nouns.

The fifth graders were given opportunities to develop tutoring skills through role-playing situations with the tutor trainer and with fellow fifth graders. A question and review period followed each training session.

The first session consisted of informal discussions concerning: (1) the function of a tutor, (2) the nature of the learner, (3) means of developing rapport with first graders, (4) the purposes and expected outcomes of the tutoring program and (5) specific tutoring techniques, behaviors and procedures.

The second session included an introduction, explanation and demonstration of how to use the Dolch Picture Word Cards. During the demonstration the investigator endeavored to incorporate and apply the principles covered in the first session.

In the third session, the fifth graders again observed how to use the Dolch materials as demonstrated by the investigator. The fifth graders then interacted with the investigator by alternating roles as a first grader and as a fifth grader.

The fourth session consisted of having the fifth graders team up in pairs and role play. Using the Dolch Picture Word Cards, the fifth graders took turns

acting the part of a first grade beginning reader, then as a fifth grade tutor.

The actual tutorial sessions were held three days a week. Each fifth grade tutor worked with his first grader 30 minutes per day for a period of two months. Little instructional time was lost from the classroom as the fifth graders tutored during their morning recess period. Twice a week the investigators supervised the tutorial program which took place in carpeted hallways or outside patios, depending on the weather.

The tutor training objectives were divided into two interrelated sections each emphasizing distinctly different kinds of skills. Section One, Interaction Skills, accentuates interpersonal communication skill development between the tutor and the learner. Section Two, Product Referenced Procedures, stresses the effective employment of the Dolch Picture Word Cards. The program objectives for the Interaction Skills are specified as follows:

1. During the tutorial interaction the tutor will act in an encouraging and friendly manner.

   Observable indices of such behaviors are:

   a. Tutor smiles frequently--especially at the beginning of each session.
   b. Tutor calls student by his first name.
   c. Tutor talks with student about something other than the lesson, e.g., "Do you have any pets at home Charlie?"

2. Whenever the student gives a correct response to a verbal or picture stimulus, the tutor will immediately give a verbal confirmation, e.g., "That's right," "Fine," "O.K." He will do this every time.
3. Several times during a session, the tutor will do more than provide simple confirmation following a correct response. He will praise the student in sincere and varied ways, e.g., "You're doing a great job today. Keep it up."
4. Whenever the student gives an incorrect response to a verbal or picture stimulus or fails to answer,

the tutor will tell the student the correct answer and then require him to respond correctly before going on, e.g., "Look at this word Jimmy. It is with. What is this word?" The tutor will not attempt to elicit the correct response by prompting.

5. The tutor will avoid punitive verbal behavior with the student, e.g., he will not say something like, "No, that's not it. Can't you remember? We just had that word a minute ago."
6. At the end of the session, the tutor will make a positive comment on the student's performance, e.g., "You did well today Susie. Good work."

The Product Referenced Procedures are specified as follows:

1. The tutor will hold each picture word card up individually so that the learner has a clear view of it.
2. The tutor will read and pronounce correctly all words on the picture word cards.

3. The tutor will sit near the learner as he reads aloud the printed words that appear on each picture word card.
4. Following step number three, the tutor will show the picture to the learner and ask such questions as "What is the word for this picture?"
5. The tutor will introduce five to nine picture word cards each week depending on the learner's apparent readiness and learning rate. The tutor will provide practice until the first grade child can correctly pronounce each word when presented with the printed word.
6. The tutor will keep a daily progress report on how well the child did and record the words covered each week on a Tutor Record Card. The tutor will also evaluate his own performance on the Tutor Record Card. The Tutor Record Cards will be turned in to the investigator following the last tutoring session of each week.

7. From day to day, the tutor will recycle for review and mastery purposes.
8. Once a week each tutor will read a story to his first grader.
9. Once a week each tutor will listen to the first grader read from his reading or library book.

Hypotheses

The present study is designed to test and analyze the following null hypotheses:

Hypothesis 1: There is no significant difference in the pre-test and post-test reading achievement mean scores for the experimental group.

Hypothesis 2: There is no significant difference in the pre-test and post-test reading achievement mean scores for the control group.

Hypothesis 3: There is no significant difference between the experimental group and the control group on the reading achievement post-test mean scores.

Statistical Analysis

The t test for correlated data was applied to test hypotheses one and two. The t test for uncorrelated data was used for the third hypothesis. In each instance the level of significance necessary to reject the null hypothesis was set at the .05 level.

Results and Conclusions

The results for hypotheses one, two and three are reported in Tables 1, 2 and 3.

Insert Table 1 about here

There is a significant difference between the pre-test and post-test reading achievement mean scores for the experimental group of first graders who received tutoring in sight word vocabulary. The null hypothesis is rejected beyond the .001 level of significance. The first graders who received individual tutoring made significant gains in sight word vocabulary.

Table 1

A comparison of pre-test and post-test mean scores for the experimental group

	N	Mean	Standard deviation	Standard error	t
Pre-test	33	15.54	6.12	1.07	
					26.43
Post-test	33	30.94	9.33	1.64	

* Statistically significant at .05 level.
** Statistically significant at .01 level.
† Statistically significant at .001 level.

Insert Table 2 about here

There is a significant difference between the pre-test and post-test reading achievement mean scores for the control group. The null hypothesis is rejected beyond the .001 level of significance. The first grade control subjects who received normal classroom instruction also made significant gains in sight word vocabulary.

Insert Table 3 about here

There is a significant difference between the experimental group and the control group on the reading achievement post-test beyond the .001 level of significance. First graders who were tutored in sight word vocabulary significantly outperformed the first grade control subjects who received normal classroom reading instruction.

Table 2

A comparison of pre-test and post-test mean scores for the control group

	N	Mean	Standard deviation	Standard error	df	t
Pre-test	33	15.78	8.13	1.43		
					32	16.79
Post-test	33	23.85	8.88	1.54		

* Statistically significant at .05 level.
** Statistically significant at .01 level.
† Statistically significant at .001 level.

Table 3

A comparison of the experimental group and the control group on the reading achievement pre-test and post-test

	t
Pre-test	.13 (n.s.)
Post-test	3.16

* Statistically significant at .05 level.

Discussion

The fifth grade student tutors were highly effective in helping first graders learn basic sight word vocabulary. The reading gains made by the first graders who were tutored were significantly higher than the gains made by first graders who received normal classroom instruction. At this point, however, just as research workers cannot predict from the insufficient evidence which has emanated from previous tutorial programs, they should not attempt to predict from the results of this study alone. The authors, therefore, emphasize the need for empirical evaluation in all future research studies concerned with tutoring.

It is important to mention certain factors which the investigators believe contributed largely to the success of the program. The fifth graders were (1) thoroughly trained in specific tutoring behaviors and procedures, (2) given a well-defined set of tasks to accomplish, (3) given demonstrations in how to employ

the program materials, (4) provided with opportunities to role play the part of the first grader as well as the part of a fifth grade student tutor, (5) informed regarding the purposes and expected outcomes of the tutorial program, and (6) directly involved in the process of evaluation.

If the above conditions are met within elementary schools attempting to implement tutoring programs, it seems likely that positive results will be realized for both the tutor and the learner. As more and more tutoring programs of this kind are implemented, more children will be helping other children learn to read instead of competing against them.

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